

The Impact of School-Based Mentoring on the Academic Achievement Gap

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Abstract

This study examined data from the Institute of Education Sciences' evaluation of school-based mentoring (SBM) programs to establish a causal relationship between SBM and reduction of the academic achievement gap between African American and White middle school students. Participation in SBM improved the academic performance of all students. The findings demonstrated a sizable increase in African American students' grade point average as a result of same-race mentoring. Implications for school counselors seeking to reduce the achievement gap are discussed.

Keywords

African American students, closing the gap, same-race match, school counseling intervention, school-based mentoring

For more than half a century, researchers have studied the academic achievement gap between African American and White students (Gagnon & Mattingly, 2018; Jencks, 2001; Osborne, 1960; Rothstein, 2004). The differences between the scores of African American and White eighth-grade students on the National Assessment of Educational Progress mathematics test narrowed between 1978 and 1992. However, researchers from the Center for Education Statistics found insignificant change between 1992 and 2015 (Musu-Gillette et al., 2017).

The adverse effect of the academic achievement gap has lifelong consequences for African Americans. These consequences include limited higher education and employment opportunities, lower earnings, and higher incarceration rates than their White counterparts (Hirschfield, 2018; Kroll, 2011; Musu-Gillette et al., 2017). Because the consequences are far reaching, narrowing this achievement gap is important. Many underachieving African American students lack the supportive adult relationships that would be beneficial in overcoming factors that have contributed to their underperformance in school (Baker, 2012; Grier & Boutakidis, 2018; Howard, 2010). School-based mentoring (SBM) provides an opportunity for students to develop a meaningful relationship with a caring adult who will offer guidance, support, and encouragement (Garringer, Kupersmidt, Rhodes, Stelter, & Tai, 2015), positioning it as a valuable intervention to help adolescents improve academically. This fits with the American School Counselor Association's (ASCA) framework in the ASCA National Model (ASCA, 2019) for school counselors to develop and deliver research-based interventions that are essential to the success of all students. When school counselors are conversant with research-based interventions and the

ASCA National Model, they can become effective change agents and powerful advocates for underachieving students (ASCA, 2019). The following literature review examines the research regarding factors that contribute to the gap, long-term effects of the gap, and the effective use of SBM.

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Literature Review

The history of African Americans in the United States provides a framework from which to understand the origins of the achievement gap. A review of the history of African American education revealed how denied education and substandard education in the past contributed to the present-day achievement gap (Anderson, 1988; Reardon, 2016; Rothstein, 2015). Even in the 21st century, many African American students continue

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to receive education inferior to that received by their White counterparts (Bohrnstedt, Kitmitto, Ogut, Sherman, & Chan, 2015; Reardon, 2016; Rothstein, 2015).

Beyond the evidence of the impact of substandard education, other factors have contributed to African Americans their academic underachievement. Studies have associated lack of school connectedness and motivation to learn with lower test scores and graduation rates (Bryan et al., 2012; Froiland & Worrell, 2016). However, researchers have found these factors to be responsive to SBM. Kraus and Cleveland (2016) conducted an action research study to determine the impact of cross-age peer mentoring on middle school students' school connectedness. The post-intervention data revealed that both the treatment and the control groups increased in school connectedness. Although the increases were not statistically significant, they were highly valuable to the school and district administration. Other studies with middle school students revealed that bonding established during effective SBM was linked to improvement in academic motivation, especially in students whose academic performance was weakest at the beginning of the study (Larose, Duchesne, & Boisclair Châteauevert, 2018).

For many students, learning difficulties, behavioral problems, or poor attendance began in elementary school. McDaniel and Besnoy (2019) piloted a case study of a yearlong, cross-age SBM program between gifted high school students and elementary students with academic or behavioral challenges. Results from the case study indicated that participation in SBM was associated with a 19% mean increase in student grades and an improvement in self-efficacy. Henderson, Williams, and Lawrence (2018) conducted a study with eighth-grade girls experiencing behavioral challenges to determine the impact of SBM on grades and behavioral infractions. The results indicated no significant differences in grades or referrals between the treatment group and the control group. In sum, these research studies suggest that while the use of SBM is often associated with positive outcomes, in some situations, it is not an effective intervention.

When left unaddressed, the educational disparity between the races has a devastating impact reaching far beyond the classroom. The achievement gap correlates with other racial gaps in society such as future earnings and incarceration rates (French et al., 2015; Hirschfield, 2018; Murnane & Duncan, 2011; Rocque & Snellings, 2018). Given these huge societal and economic costs, closing the achievement gap is of paramount importance. School counselors, as advocates for all students, are well positioned to design and implement evidence-based, data-driven interventions to reduce the achievement gap and ensure the success of all students. This article provides findings from my quantitative study to support the use of SBM as an effective intervention that school counselors can implement to reduce the academic achievement gap.

Method

The ASCA National Model (ASCA, 2019) identifies the crucial role school counselors play, through targeted interventions, in

closing the achievement gap and promoting success for all students. The literature review has indicated some of the devastating long-term consequences of the achievement gap for African American students and shown that mentoring can have a positive impact on academic outcomes. Research has also demonstrated mentoring's close affinity to cultural values within the African American community (Taylor, Chatters, Woodward, & Brown, 2013). My study examined two research questions:

1. Does participation in SBM significantly reduce the gap in academic achievement between African American and White students?
2. What impact does the race of the mentor have on the achievement gap?

I analyzed data from the 2009 Institute of Education Sciences (IES) that evaluated federal school mentoring programs (Bernstein, Rappaport, Olsho, Hunt, & Levin, 2009). I obtained these data on the restricted site license #08020007. I conducted this analysis to determine whether participation in SBM significantly reduced the academic achievement gap between African American and White middle school students and to determine the impact of same-race match SBM on the achievement gap.

Research Design

The IES report evaluated the impact of the Federal Student Mentoring Program on a range of student outcomes: improving interpersonal relationships, discouraging drug and alcohol use and other delinquent behaviors, reducing dropout rates, and improving academic achievement. The IES study used a true quantitative experimental design to determine the efficacy of federally funded SBM programs. Student surveys were used to collect data from the fall and spring of the 2005–2006 and 2006–2007 school years. The target population of the IES study included students with academic and behavioral problems, who lacked strong role models, who lived in rural and/or high crime areas, and/or who attended schools with violence problems. In the IES study, the participants were randomly assigned either to the experimental group (participated in SBM) or to the control group. Pre- and posttreatment data were collected from both groups. The race of the mentor relative to the race of the mentee was one of the covariates examined to determine its impact on the achievement gap. The IES data were collected using a true experimental quantitative design. Therefore, I was able to use the IES data in my research to establish a causal relationship between SBM and a reduction in the academic achievement gap between African American and White students.

Research Population

The IES recruited nearly 3,000 students from the fourth through eighth grades with an average age of 11.2 years. The students belonged to at least one of the following groups: lacked strong adult role models, lived in high-crime areas, had

academic challenges, or were involved in delinquent activities. The IES study participants were randomly assigned to two equal-sized groups. Participants assigned to the treatment group received mentoring, while the students assigned to the control group did not receive mentoring. Approximately half of the study participants were male. The distribution of race in the IES study was 39% African American, 30% Hispanic, and 21% White. My research analyzed a subset of this data, an analytic sample of students in Grades 6–8. Of the students in this subset, 46.3% were male; regarding race/ethnicity, 60.1% of the students were African American and 39.9% were White.

Data Measurement

I measured the academic achievement of my subset group (Grades 6–8; 60% African American, 40% White) using the mathematics grade point average (GPA) from IES baseline data (Year 1) and IES posttreatment data (Year 2). The outcome variable was the change in the mean GPA from Year 1 to Year 2. GPA was measured on a 4-point scale. Once I determined that SBM reduced the achievement gap, I investigated the impact on the achievement gap of covariates including the race of the mentor relative to the race of the mentee. I analyzed four mentor/mentee race combinations to determine the impact of cross-race versus same-race mentoring matches: (a) African American student with White mentor, (b) White student with non-White mentor, (c) African American student with African American mentor, and (d) White student with White mentor.

Data Analysis

I used analysis of variance (ANOVA) to investigate the impact of SBM on the achievement gap between African American and White students (Research Question 1). My research examined the change in GPA means between these two groups, before and after SBM. This design followed a $2 \times 2 \times 2$ split-plot randomized design, with time (pre- and posttreatment GPA) as the within-subjects factor, race as the external between-subjects factor, and participation in SBM as the manipulated between-subjects factor. The ANOVA produced an F ratio that compared how much of the variability in the data was due to explanatory factors (in this case, change over time, participation in SBM, and race) and how much was due to random effects. This study used the standard α level of .05 to argue for significance in this analysis. I used split-plot ANOVAs to determine the influence of SBM and the covariate on the achievement gap.

Results

Analysis of the IES data supported the use of SBM as an effective strategy in closing the academic achievement gap. The $2 \times 2 \times 2$ split-plot ANOVA also revealed a statistically significant combined effect of race of mentor/mentee (Research Question 2) and participation in SBM on mathematics GPA over time. Figure 1 shows the change over time

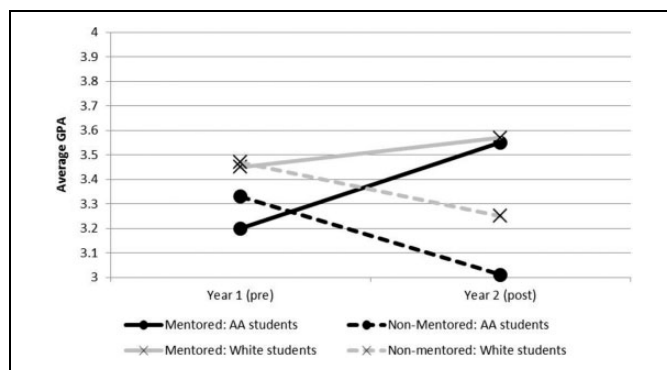


Figure 1. Change over time in mathematics grade point average for students who did and did not receive mentoring, comparing AA and White student performance.

in mathematics GPA for African American (AA) students (black lines with circle markers) and White students (gray lines with X markers) broken down by those who received mentoring (solid lines) and those who did not (dashed lines).

Analysis of the IES data supported the use of SBM as an effective strategy in closing the academic achievement gap . . . [and] revealed a statistically significant combined effect of race of mentor/mentee and participation in SBM on mathematics GPA over time.

The figure highlights the impact of SBM on the disparity between African American and White students' mathematics GPA. Prior to mentoring, the achievement gap in the GPA between the two racial groups who received SBM was .25. All students who participated in SBM experienced a significant increase in mathematics GPA over time; however, African American students who participated in SBM improved more than White students who did so. White participants' GPA increased .12, while African American participants' GPA increased .22. The difference in gain between these two groups closed the achievement gap in mathematics observed in Year 1. Among students who did not receive SBM, however, the mathematics achievement gap between White and African American students became wider over time, with the difference in GPA growing from .14 to .24. The results of the split-plot ANOVA revealed that the effect of SBM on mathematics GPA over time is significantly influenced by race. Taken together, the analyses clearly demonstrated the overall effectiveness of SBM in improving the academic performance of African American students and consequently reducing the achievement gap in mathematics.

I conducted the final analysis in this study to determine the impact of cross-race versus same-race matches on the achievement gap between African American and White students over time. I used a split-plot ANOVA to analyze the data; only those students who had received SBM were included in this analysis. Figure 2 shows the change over time in mathematics GPA for

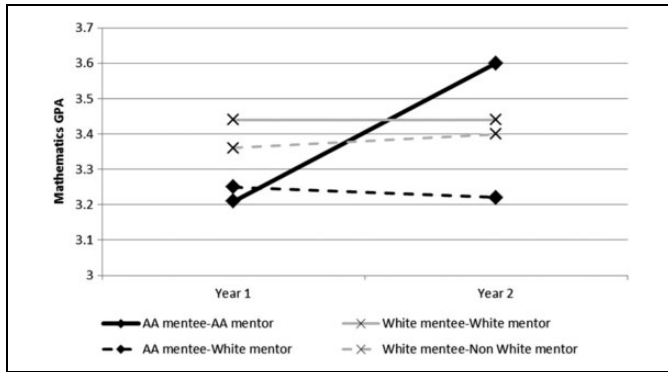


Figure 2. Impact of the race of the mentoring match on the change over time in mathematics grade point average.

African American (AA) students (black lines with diamond markers) and White students (gray lines with X markers) broken down by those in same-race matches (solid lines) and those in cross-race matches (dashed lines). This figure illustrates a dramatic impact of the race of the mentor relative to the race of the mentee on the mathematics GPA. The solid gray line shows that White students who received mentoring from White mentors had no change in GPA over time, whereas White students who were mentored by non-White mentors experienced a small increase (.04 GPA) over time. African American students experienced a small decline in GPA (−.02) over time when they received mentoring from White mentors. However, the impact of same-race mentoring for African American students was considerable. These students experienced a substantial increase (.40) in GPA over time. The results showed that SBM had no impact on African American students if the mentor was White, but it eliminated—and even reversed—the achievement gap if the mentor was African American.

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Table 1 shows a statistically significant effect on mathematics GPA over time due to the race of the mentoring match $F(1, 225) = 3.67, p < .05$. This table shows the results of a 2×4 split-plot ANOVA conducted to determine the impact of cross-race versus same-race matches on the achievement gap between African American and White students. The table shows the change in mathematics GPA for four mentor/mentee race combinations. The first column lists the independent variables, individual change, and race of match, which impact the dependent variable, mathematics GPA. The second through fourth columns include the measures of deviation used to calculate the F ratio shown in the last column. The mathematics GPA data for both years of the study were merged in the between-subjects data shown in the table. Although these

Table 1. Split-Plot 2×4 Analysis of Variance Results on the Impact of Cross-Race Versus Same-Race Matches on the Mathematics Achievement Gap Between African American and White Students Over Time.

Source	Sum of Squares	Degree of Freedom	Mean Square	F
Within subjects				
Individual change	0.19	1	0.19	0.32
Individual change by race of match	6.79	3	2.26	3.67*
Error (time)	138.67	225	0.62	
Between subjects				
Intercept	4,692.42	1	4,692.42	2,731.10***
Race of match	3.21	3	1.07	0.62
Error	386.58	225	1.72	

* $p < .05$. ** $p < .01$. *** $p < .001$.

results were not relevant to the purpose of this study, I have included them to present additional information gleaned from the analysis, which may warrant further investigation.

Discussion

The results of this study demonstrated that SBM is an effective tool in reducing the achievement gap between African American and White students. African American students were much more responsive to the race of the mentor than were White students. Conversely, regardless of whether they were in a same- or cross-race match, the academic performance of White students was essentially unchanged over time. Although African American students experienced a sizable increase in their GPA as a result of same-race mentoring, those African American students in cross-race matches experienced a slight decline in their GPA over time. The contributions of the following researchers provide a lens through which to view the varying impact of cross- and same-race matches.

The highly positive response of African American youth to same-race mentors may be related to their development of racial identity. According to Berry (2005), interacting with high-achieving mentors of their own race helps African American students move their racial identity from the place of devaluing their own culture to that of building and recognizing the value of their own racial identity. Researchers have documented the power of racial identity in moderating the adverse effect of discrimination in African American youth (Kyeré & Huguley, 2018; Leath, Mathews, Harrison, & Chavous, 2019; Mirpuri et al., 2019). The findings from my study are consistent with Ogbu's (1992) theory that educated successful African American mentors who develop meaningful relationships with African American students can have a positive impact on the students' perception of their racial identity and on their academic performance. Another possible explanation for the dramatic difference in response to SBM between the African American and White students in this study could be that White students often interact

with successful White role models such that a relationship with a high-achieving mentor may have little additional impact.

The primary objectives of my analysis were to determine whether participation in SBM was effective in reducing the academic achievement gap between African American and White students and what impact race of the mentor had on the achievement gap. This study found a statistically significant difference in the change in mean mathematics GPA between students who participated in SBM and those who did not. This is consistent with the prevailing literature (Herrera, Grossman, Kauh, & McMaken, 2011; McDaniel & Besnoy, 2019; Raposa et al., 2019).

Although SBM is often associated with improved school performance, many researchers have documented that positive academic outcomes were associated with smaller subsets of the participating students (Herrera et al., 2011). The results of my analysis showed a differential in the response to SBM between the two racial groups, which suggests African American students may be more responsive to SBM than White students; thus, SBM may be effective in reducing the achievement gap.

Within African American culture, youth are nurtured by older, unrelated, and caring adults who provide them with encouragement and guidance (Taylor et al., 2013). These nurturing individuals are referred to as fictive kin. The striking similarity between their same-race mentors and fictive kin might have contributed to the African American students' more compelling response to SBM.

The African American students in this study were significantly underperforming their White peers prior to SBM. Park, Liao, and Crosby (2017) found SBM to be most effective in improving the GPA of significantly underperforming students. Therefore, another possible explanation for the differential response to SBM could be the significant underperformance of African American students prior to treatment.

In summary, analysis of the data revealed that participation in SBM improved the academic performance of all students and most strikingly the academic performance of African American students. The study demonstrated that African American students were much more responsive to the race of the mentor than were White students, experiencing a statistically significant increase in their GPA as a result of same-race mentoring. An intriguing finding was that African American students in cross-race matches experienced a slight decline in GPA over time. One should not infer from this that same-race mentoring is the sole cause of these noteworthy outcomes. Covariants, such as fictive kin and substantial prior underperformance, may also impact the success of SBM. In fact, previous researchers (Grossman & Rhodes, 2002; Park, Yoon, & Crosby, 2016; Rhodes, Reddy, Grossman, & Lee, 2002) found that race alone was not a significant predictor of positive mentoring outcomes.

Limitations of the Study

This study is based on a true experimental quantitative design, a type that includes the most robust and rigorous designs (Creswell, 2008), but this study, like all research, is affected by

limitations. The term "academic achievement gap" refers to a persistent disparity in the educational performance between groups of students. My study was limited to comparing the achievement gap between African American and White students. A more comprehensive study could include student groups based on ethnicity, gender, or socioeconomic category. The participants studied were at-risk middle school students; therefore, the findings from this study only have generalizability to middle school students similar to those who participated in this study.

This study could only determine the correlation between the race of the mentor and the achievement gap because it did not include experimental control of the cross-race versus same-race program feature. Another limitation of the study is that the race of the mentor was the only program feature analyzed. Other SBM factors that might influence the achievement gap include the duration, frequency, and content of the meetings, and the quality of the mentoring relationship; these were not studied.

Implications

The findings of this study are consistent with the ASCA National Model (ASCA, 2019) and have significant implications for school counselors working in schools where data reveal an academic achievement gap between African American and White students. This study's results indicate that SBM with same-race mentors provides school counselors with an evidence-based intervention that contributes to a reduction in the academic achievement gap.

School counselors seeking to apply this method must first determine whether an achievement gap exists between African American and White students in their school. This may be done by disaggregating data, either from the student information system or from the school improvement plans. Once a discrepancy between the two racial groups is determined, practicing school counselors may follow the three closing-the-gap steps outlined in the fourth edition of the ASCA National Model (ASCA, 2019), which are design, documentation, and implementation.

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In the design step, counselors select the ASCA Mindsets & Behaviors best suited to help the identified students reach their goals and thus reduce the achievement gap. For the fictitious Collingwood High School (shown in the Appendix), I have selected M 6 (positive attitude toward work and learning), B-LS 3 (use time management, organizational, and study skills), and B-SMS 4 (demonstrate ability to delay immediate gratification for long-term rewards).

In the documentation step, school counselors detail all activities and interventions on the ASCA Closing-the-Gap Action

Plan/Results Report template. This report template provides school counselors with a guide to collect and analyze data on discrepancies between student groups, then to share their closing-the-gap results with critical stakeholders. An example of how the Closing-the-Gap Action Plan/Results Report might be completed is included in the Appendix.

During implementation, the final closing-the-gap step, school counselors execute the same-race match SBM intervention, a Tier 2 activity. The example in the Appendix includes other Tier 1 and Tier 2 interventions counselors might also consider when endeavoring to reduce the academic achievement gap. Finally, school counselors collect and analyze student achievement data throughout the implementation of SBM to monitor students' progress toward closing the achievement gap.

In today's educational climate, school personnel are often evaluated based on their ability to increase student test scores and close achievement gaps (Michigan Department of Education, 2018). School counselors may benefit from considering the targeted nature of this study's results regarding the impact of SBM using same-race mentors.

Conclusion

This study examined the impact of SBM on the academic achievement gap between African American and White students through an analysis of existing data collected by the IES. A quantitative analysis of the data established a causal relationship between SBM and change in racial differences in mathematics GPA after participation in SBM. This study produced remarkable results; same-race mentors correlated with a sizable increase in the mathematics GPA of African American students to the extent of reversing the achievement gap.

The study also provided implications for school counselors establishing SBM programs designed to reduce achievement gaps. Developing an SBM program can be time consuming and, if conducted poorly, can even have a damaging effect on academic performance (Anastasia, 2012; Lerner, Brittan, & Fay, 2007; Spencer, Basualdo-Delmonico, Walsh, & Drew, 2017). Therefore, knowing that same-race mentoring matches are strongly associated with reducing the achievement gap may help counselors to make informed decisions in terms of establishing an effective SBM program.

Appendix

Sample Closing-the-Gap Action Plan/Results Report



Closing-the-Gap Action Plan/Results Report

School Name	Collingwood High School		
Annual Student Outcome Goal	By June 5, 2020, all ninth-grade students who entered Collingwood with Ds or Fs (GPA range 0-1.67) in eighth-grade mathematics ($N = 30$) will increase their final grade(s) to at least a C. Progression toward goal will be measured at the end of each marking period.		
Mindsets & Behaviors (Limit of three)			
<ol style="list-style-type: none"> M 6: Positive attitude toward work and learning B-LS 3: Use time-management, organizational and study skills B-SMS 4: Demonstrate ability to delay immediate gratification for long-term rewards 			
Mindsets & Behaviors Survey Items:			
<ol style="list-style-type: none"> I believe I am able to do my best in school. I use a planner to organize my time. I know two strategies to use when my friends try to pull me away from my schedule. I can earn a C or better in math. 			
Interventions			
Direct Student Services (MTSS)		Indirect Student Services	
<ol style="list-style-type: none"> Whole ninth-grade class lessons on organization and time management skills. (Tier 1) Individual academic counseling and invitation to mentoring program. (Tier 2) Weekly one-to-one Same-Race SBM sessions. (Tier 2) 		<ol style="list-style-type: none"> Inform critical stakeholders of Same-Race School-Based Mentoring (SBM) intervention. Invite volunteer mentors to apply. Assign screened mentor to a same-race mentee. School-Based Mentoring (SBM) 	
Data Collection Plan		Results Data	
Participation Data Plan		Participation Results Data	
<i>Anticipated</i>		<i>Actual</i>	
<ul style="list-style-type: none"> One ninth-grade class lesson on organization and time management for all 120 ninth graders. Four individual academic counseling sessions with 30 identified students to collect and discuss data: Baseline and end of each grading period. 10 weekly sessions of SBM during each grading period for 30 identified students. 		<ul style="list-style-type: none"> Two class lessons on organization and time management in each ninth-grade English class, with 109 ninth graders. Four individual academic counseling sessions with 30 identified students to collect and discuss data: Baseline and end of each grading period. Nine sessions of SBM during each of the three grading periods for the identified students. 27 SBM session during the school year. 	
Mindsets & Behaviors Data Plan		Mindsets & Behaviors Data Results	
<i>Pre-Intervention Data Average:</i> (4-point Likert scale)		<i>Post-Intervention Data Average:</i> (4-point Likert scale)	
1. 2.90 2. 1.33 3. 1.57 4. 1.43		1. 3.50 2. 1.60 3. 3.50 4. 3.27	
Outcome Data Plan		Outcome Data Results	
<i>Baseline Data:</i>		<i>Final Data:</i>	
<ul style="list-style-type: none"> 30 ninth-grade students (20 of whom are African American) who earned Ds or Fs in 8th eighth-grade math De-identified individual student grades are attached to this document. 		<ul style="list-style-type: none"> 25 of the 30 identified students earned Cs or better in ninth-grade math by the end of the third marking period. 18 of the 20 African American students earned Cs or better in ninth-grade math by the end of the third marking period. Three of the 10 White students earned Cs or better in ninth-grade math by the end of the third marking period De-identified individual student grades are attached to this document. 	
		<i>Percent Change:</i>	
		The mathematics passing rate of this group increased by 83%.	

Implications
Analyze your data. How will data inform future practice?

Baseline Data:

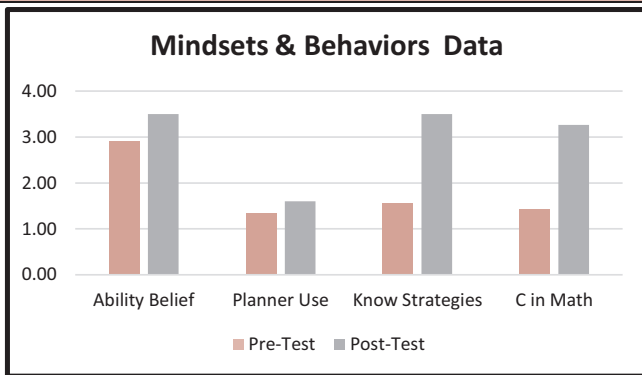
- 30 ninth-grade students (20 of whom are African American) who earned Ds or Fs in 8th eighth-grade math
- De-identified individual student grades are attached to this document.

Final Data:

- 25 of the 30 identified students earned Cs or better in ninth-grade math by the end of the third marking period.
- 18 of the 20 African American students earned Cs or better in ninth-grade math by the end of the third marking period.
- Three of the 10 White students earned Cs or better in ninth-grade math by the end of the third marking period
- De-identified individual student grades are attached to this document.

Percent Change:
The mathematics passing rate of this group increased by 83%.

Implications
Analyze your data. How will data inform future practice?



Participation Data	Value
Number of Students	30
Grade of Students	9 th
Number of Sessions	27
Session Length	60
When Implemented	A.S.

30 ninth-grade students with failing grades in math participated in same-race SBM after-school (A.S) sessions.

During the four individual academic counseling sessions, students in the same-race SBM sessions demonstrated an improvement in their knowledge, skills, and attitude toward school work and learning

Of the 30 ninth-grade students who participated in Same-Race Match SBM, 83% made a C or better in mathematics by the end of ninth grade.

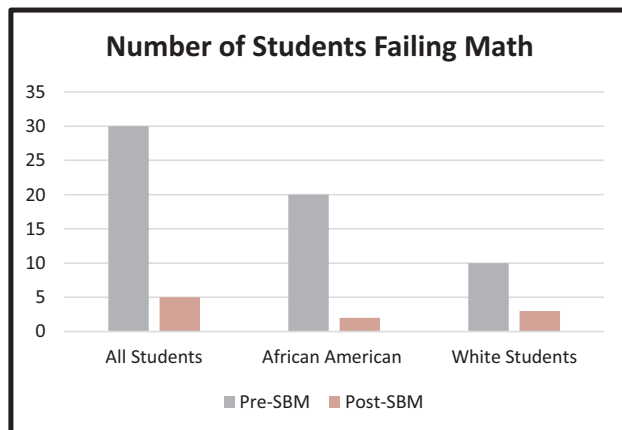
Of the African American students, 90% earned a C; 70% of the White students earned a C grade. These data suggest that participation in Same-Race Match SBM contributes to improving mathematics grades.

Seventeen percent of the failing students did not improve after SBM. This implies a continued need to locate other research-based interventions for those students who did not respond favorably to SBM.

Allowing the mentees to interview and select their own same-race mentor may have contributed to an improvement in the quality of the relationship. Consequently, that improved relationship may have improved the outcome.

The content of the SBM sessions was not monitored. Standardizing the SBM session content would eliminate that as a mitigating factor. Next school year, the Collingwood High School Counseling Department will allow the identified students to select their mentor and the counselors will also standardize the content of the mentoring session and reevaluate the effectiveness of the intervention.

OUTCOME DATA



Author's Note

This research was conducted on data obtained from the restricted site license #08020007.

Declaration of Conflicting Interests

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References

- American School Counselor Association. (2019). *ASCA National Model: A framework for school counseling programs* (4th ed.). Alexandria, VA: Author.
- Anastasia, T. (2012). Youth mentoring: Program and mentor best practices. *Journal of Family and Consumer Sciences, 104*, 38–44.
- Anderson, J. D. (1988). *The education of Blacks in the South, 1860–1935*. Chapel Hill: University of North Carolina.
- Baker, W. L. (2012). High school dropout: Perceptions and voices of African American and Hispanic students. *The Delta Kappa Gamma Bulletin, 78*, 50–56. Retrieved from <http://hdl.handle.net/1969.1/ETD-TAMU-2011-05-9285>
- Bernstein, L., Rappaport, C. D., Olsho, L., Hunt, D., & Levin, M. (2009). *Impact evaluation of the U.S. Department of Education's student mentoring program. Final report* (NCEE 2009-4047). National Center for Education Evaluation and Regional Assistance. Retrieved from <https://files.eric.ed.gov/fulltext/ED504310.pdf>
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations, 29*, 697–712. doi:10.1016/j.ijintrel.2005.07.013
- Bohrnstedt, G., Kitmitto, S., Ogut, B., Sherman, D., & Chan, D. (2015). *School composition and the Black–White achievement gap* (NCES 2015-018). U.S. Department of Education, National Center for Education Statistics. Retrieved from https://nces.ed.gov/nationsreportcard/subject/studies/pdf/school_composition_and_the_bw_achievement_gap_2015.pdf
- Bryan, J., Moore-Thomas, C., Gaenzle, S., Kim, J., Lin, C. H., & Na, G. (2012). The effects of school bonding on high school seniors' academic achievement. *Journal of Counseling & Development, 90*, 467–480. doi:10.1002/j.1556-6676.2012.00058.x
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). London, England: Pearson Education.
- French, M., Homer, J., Popovici, I., & Robbins, P. (2015). What you do in high school matters: High school GPA, educational attainment, and labor market earnings as a young adult. *Eastern Economic Journal, 41*, 370–386. doi:10.1057/ej.2014.22
- Froiland, J. M., & Worrell, F. C. (2016). Intrinsic motivation, learning goals, engagement, and achievement in a diverse high school. *Psychology in the Schools, 53*, 321–336. doi:10.1002/pits.21901
- Gagnon, D. J., & Mattingly, M. J. (2018). Racial/ethnic test score gaps and the urban rural continuum. *Journal of Research in Rural Education, 33*, 1–16. doi:10.18113/P8JRRE3302
- Garringer, M., Kupersmidt, J., Rhodes, J., Stelter, R., & Tai, T. (2015). *Elements of effective practice for mentoring*. MENTOR: National Mentoring Partnership. Retrieved from <https://files.eric.ed.gov/fulltext/ED594036.pdf>
- Grier, L. K., & Boutakidis, I. (2018). The ecology of social support in relation to academic and behavioral self-perceptions among African American boys and girls. *Journal of Human Behavior in the Social Environment, 28*, 798–816. doi:10.1080/10911359.2018.1464416
- Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30*, 199–219. doi:10.1023/A:1014680827552
- Henderson, L., Williams, J., & Lawrence, E. (2018). The experiences of behaviorally at-risk adolescent girls in a mentoring program. *Mentoring & Tutoring: Partnership in Learning, 26*, 482–502. doi:10.1080/13611267.2018.1561000
- Herrera, C., Grossman, J. B., Kauh, T. J., & McMaken, J. (2011). Mentoring in schools: An impact study of big brothers big sisters school-based mentoring. *Child Development, 82*, 346–361. doi:10.1111/j.1467-8624.2010.01559.x
- Hirschfield, P. J. (2018). The role of schools in sustaining juvenile justice system inequality. *The Future of Children, 28*, 11–36. Retrieved from <https://www.jstor.org/stable/26641545>
- Howard, T. C. (2010). *Why race and culture matter in schools: Closing the achievement gap in America's classrooms*. New York, NY: Teachers College Press.
- Jencks, C. (2001). America's next achievement test. *American Prospect*. Retrieved from <https://prospect.org/article/americas-next-achievement-test>
- Kraus, S. E. C., & Cleveland, R. E. (2016). The effects of a cross-age peer mentoring program on school connectedness with rural populations. *Georgia School Counselors Association Journal, 23*, 26–37. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1140852.pdf>
- Kroll, A. (2011). The African American jobs crisis and the new Jim Crow. *Race, Poverty & the Environment, 18*. Retrieved from https://urbanhabitat.org/files/18-2.kroll_pdf
- Kyere, E., & Huguley, J. P. (2018). Exploring the process by which positive racial identity develops and influences academic performance in Black youth: Implications for social work. *Journal of Ethnic & Cultural Diversity in Social Work, 1*–19. doi:10.1080/15313204.2018.1555502
- Larose, S., Duchesne, S., & Boisclair Châteauvert, G. (2018). How does mentoring by teachers improve the adjustment of academically at-risk students in high school? *International Journal of School and Educational Psychology*. doi:10.1080/21683603.2018.1509035
- Leath, S., Mathews, C., Harrison, A., & Chavous, T. (2019). Racial identity, racial discrimination, and classroom engagement outcomes among Black girls and boys in predominantly Black and

- predominantly White school districts. *American Educational Research Journal*. doi:10.3102/0002831218816955
- Lerner, R., Brittan, A., & Fay, K. (2007). Mentoring: A key resource for promoting positive youth development. *Research in Action, 1*, 3–9. Retrieved from <https://files.eric.ed.gov/fulltext/ED502223.pdf>
- McDaniel, S. C., & Besnoy, K. D. (2019). Cross-age peer mentoring for elementary students with behavioral and academic risk factors. *Preventing School Failure: Alternative Education for Children and Youth, 63*, 254–258. doi:10.1080/1045988X.2019.1579163
- Michigan Department of Education. (2018). *Michigan school index system guide*. Retrieved from https://www.michigan.gov/documents/mde/MI_School_Index_System_Guide_614557_7.pdf
- Mirpuri, S., Ray, C., Hassan, A., Aladin, M., Wang, Y., & Yip, T. (2019). Ethnic/racial identity as a moderator of the relationship between discrimination and adolescent outcomes. In H. Fitzgerald, D. Johnson, D. Qin, F. Villarruel, & J. Norder (Eds.), *Handbook of children and prejudice*. Springer Nature. doi:10.1007/978-3-030-12228-7_27
- Murnane, R. J., & Duncan, G. J. (Eds.). (2011). *Whither opportunity? Rising inequality, schools, and children's life chances*. New York, NY: Russell Sage Foundation.
- Musu-Gillette, L., de Brey, C., McFarland, J., Hussar, W., Sonnenberg, W., & Wilkinson-Flicker, S. (2017). *Status and trends in the education of racial and ethnic groups 2017* (NCES 2017-051). U.S. Department of Education, National Center for Education Statistics. Retrieved from <https://nces.ed.gov/pubs2017/2017051.pdf>
- Ogbu, J. U. (1992). Understanding cultural diversity and learning. *Educational Researcher, 21*, 5–14. Retrieved from <https://www.jstor.org/stable/1176697>
- Osborne, R. T. (1960). Racial differences in mental growth and school achievement: A longitudinal study. *Psychological Reports, 7*, 233–239. doi:10.2466/pr0.1960.7.2.233
- Park, H., Liao, M., & Crosby, S. D. (2017). The impact of Big Brothers Big Sisters programs on youth development: An application of the model of homogeneity/diversity relationships. *Children and Youth Services Review, 82*, 60–68. doi:10.1016/j.chidyouth.2017.09.009
- Park, H., Yoon, J., & Crosby, S. D. (2016). A pilot study of Big Brothers Big Sisters programs and youth development: An application of critical race theory. *Children and Youth Services Review, 61*, 83–89. doi:10.1016/j.chidyouth.2015.12.010
- Raposa, E. B., Rhodes, J., Stams, G. J. J., Card, N., Burton, S., Schwartz, S., . . . Hussain, S. (2019). The effects of youth mentoring programs: A meta-analysis of outcome studies. *Journal of Youth and Adolescence, 48*, 423–443. doi:10.1007/s10964-019-00982-8
- Reardon, S. F. (2016). School segregation and racial academic achievement gaps. *RSF: The Russell Sage Foundation Journal of the Social Sciences, 2*, 34–57. doi:10.7758/RSF.2016.2.5.03
- Rhodes, J. E., Reddy, R., Grossman, J. B., & Lee, J. M. (2002). Volunteer mentoring relationships with minority youth: An analysis of same versus cross-race matches. *Journal of Applied Social Psychology, 32*, 2114–2133.
- Rocque, M., & Snellings, Q. (2018). The new disciplinology: Research, theory, and remaining puzzles on the school-to-prison pipeline. *Journal of Criminal Justice, 59*, 3–11. doi:10.1016/j.jcrimjus.2017.05.002
- Rothstein, R. (2004). A wider lens on the Black-White achievement gap. *Phi Delta Kappan, 86*, 104–110. doi:10.1177/003172170408600204
- Rothstein, R. (2015). The racial achievement gap, segregated schools, and segregated neighborhoods: A constitutional insult. *Race and Social Problems, 7*, 21–30. doi:10.1007/s12552-014-9134-1
- Spencer, R., Basualdo-Delmonico, A., Walsh, J., & Drew, A. L. (2017). Breaking up is hard to do: A qualitative interview study of how and why youth mentoring relationships end. *Youth & Society, 49*, 438–460. doi:10.1177/0044118X14535416
- Taylor, R. J., Chatters, L. M., Woodward, A. T., & Brown, E. (2013). Racial and ethnic differences in extended family, friendship, fictive kin, and congregational informal support networks. *Family Relations, 62*, 609–624. doi:10.1111/fare.12030

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